

STORIES

FOR

Summer Days & Winter Nights.

SECOND SERIES.

THE CHILDREN

AND

THE SAGE.

LONDON:

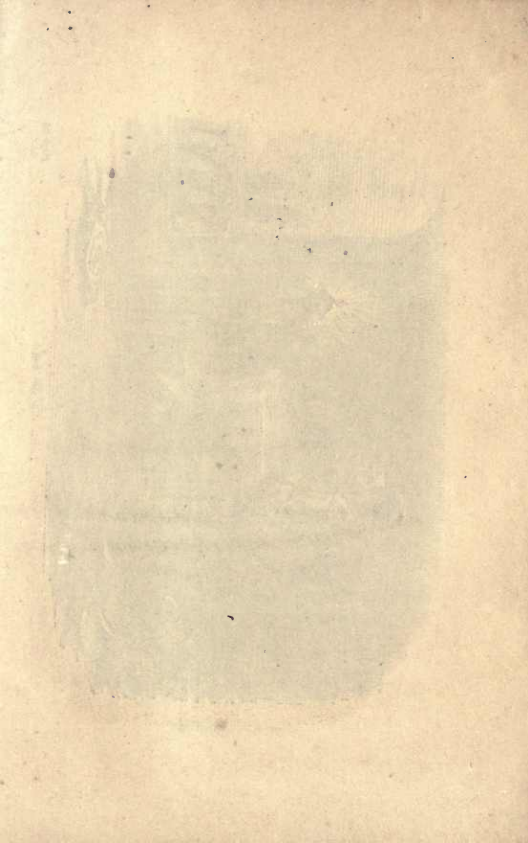
GROOMBRIDGE AND SONS,

PATERNOSTER ROW.

CHILDREN'S BOOK  
COLLECTION

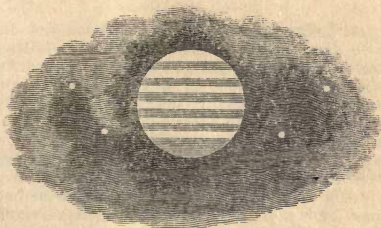


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LOS ANGELES





THE  
CHILDREN AND THE SAGE.



Jupiter and his Moons.

*Page 38.*

London:  
GROOMBRIDGE AND SONS,  
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## THE CHILDREN AND THE SAGE.



### THE CHILDREN.

Who has not heard of the country called Italy, a beautiful and fertile land lying to the south of the high mountains called the Alps? Who has not heard of its grapes and oranges, its groves of olive-trees and myrtles, and its fields of rice and maize; and who has not heard too of the grand old cities of Italy with their beautiful buildings and fine sculpture and paintings? All these things make it most interesting to visit and read about, and it becomes still more so, when we remember that in Italy much of the present civilization of the world was, as it were, *begun*; for not only were many arts and sciences first practised and studied there, but also many useful discoveries and inventions were made there and brought to perfection, which have since been highly useful to mankind. The great prosperity of Italy, is however, past and gone, and through bad government, and what we think mistaken views of religion, it is now very far behind many other countries of the world, so that while grapes and oranges still grow and ripen there, and groves of olives and myrtles and fields of rice and maize are still to be seen, just as they were perhaps two or three hundred years ago; yet in all other respects, we admire Italy for what it was, and visit it and read about its cities in order to find the traces

of what they once were in the days of their prosperity and greatness.

And now we are about to tell a story of some things that happened in one of these cities of Italy, after what may be called its best days were past. Things which concerned one of the greatest men of the time, whose name is well known, and which happened also to two children whose names have certainly never been heard before, but who might have done and said all that is related here.

It was in a city called Pisa, about two hundred and sixty years ago, that there lived a man named Bertano, who was celebrated at that time as a manufacturer of glass. He had originally come from Venice, in which city glass was first made in Italy, and which was very celebrated for its looking-glasses and mirrors ; and when he settled at Pisa, glass was still quite a novelty to the people, and only the rich had glass windows to their houses, or drinking vessels of glass for their tables, while a looking glass was considered one of the most curious and costly of ornaments ; indeed it was looked into almost with a feeling of awe, so wonderful was it thought that a person's face could be reflected so accurately.

Bertano was not only a maker of glass for windows and mirrors, but he was also acquainted with the art of staining glass with rich and beautiful colours, and at the time of our story was engaged in making some beautiful coloured glass windows for a church in Pisa, on which different scriptural subjects were represented. He inhabited a large old house near one of the gates of the city, and round a courtyard at the back were workshops and furnaces, where assisted by workmen, he carried on his employment very industriously, and earned much money.

Bertano had lost his wife before he came to Pisa, and his family consisted only of two children, a boy



and a girl, who were taken care of by an old house-keeper or nurse, who generally went by the name of Dame Ursula. Now the real names of the children were Lancilotto and Fiammina, but as these were rather long even for the Italians to pronounce, the usual names by which they were known at home were Lotto and Mina, and such I shall always call them. How different were the brother and sister ! At the time I am writing about, Lotto was a lively active boy of twelve, while Mina at ten was a poor little sickly cripple, moving each morning with difficulty from her bed to a chair, and in the evening from her chair back again to her bed. Lotto was here, there, and every where, seeing and hearing and meddling in every thing ; Mina sat the long and weary day through, in the deep recess of a window which looked across the street only to the opposite house, and through which little light and little air came. This window had to be sure a casement of glass of small diamond-shaped panes, which her father had put in for her, but only a little portion of it would open to admit the air, and it was so high that there was little possibility of even getting a peep from it down into the street to see the passers-by ; and only a little patch of blue sky could be seen over the top of the opposite house, which at night, Mina as she lay on her bed could sometimes see a few stars twinkling, but never by any chance the sun or moon.

It would have been a weary life indeed for this little girl, being thus shut up a prisoner in one room, and seeing as she did only Dame Ursula at those times when she had to be dressed or undressed, or have her meals, and seldom seeing her father more than once a day, if it had not been for Lotto. Happily for her, Lotto was a good kind brother, and very luckily too for her, Lotto was a great talker. In the midst of all his occupations and amusements he

never forgot his sister Mina, and all he heard and saw was repeated and described to her, so that Mina lived in the world as it were through the eyes, and ears and tongue of Lotto, and had almost left off wishing that she could see and hear for herself, so well did he describe and tell.

All that he could find likely to give her pleasure or amusement would Lotto bring up to her little gloomy room, so that Lotto's visits often enabled her to fill up well the time of his absence. The ripest melon to be had in the market, or the most tempting bunch of grapes would be sure to find their way to her, while the seasons were marked to her by the fresh bunches of flowers that Lotto would gather for her in the fields and woods around the city. Mina's most favourite playthings, however, were the scraps and fragments of glass that Lotto collected for her out of his father's workshops. He was a favourite with the workmen, and when not too busy they would mould him ornaments of glass and make him little coloured glass beads to take to his little sick sister who lay ill up stairs. Mina had thus a large collection of pieces of stained glass, with which she used to amuse herself in making all kinds of devices and patterns on the table before her; and of threading necklaces and rosaries of coloured beads, she was never tired. She had, however, other employments of a more useful kind, for she could plait straw very neatly, of which she made baskets and mats, and could embroider very prettily in coloured silks and wools, so that in spite of her imprisonment she was seldom idle, and even when Lotto was with her, her little fingers would be busy over some little present or other for her friends.

Mina as we have said, was generally the listener when they were together, for living the dull life that she did, it was very seldom that she had anything to tell to Lotto. It happened, however, one

day, that when Lotto had come up to bring her some particularly bright pieces of red and yellow glass that one of the workmen had given him, it was Mina who had a piece of news to tell.

‘Do you know Lotto,’ said she, ‘that some one has come to live in the house on the other side of the street, and that I can see him very often at his window teaching and studying. Dame Ursula tells me that he is called the Doctor Galilei and that he is a very learned man indeed. Do you know that I almost think he must be an astrologer, for last night after I went to bed, I could see him out on his balcony looking at the stars, and then going every now and then back into his room to write at the table where his lamp was burning.’

‘An Astrologer! I should not wonder; and astrologers can tell the future they say by looking at the stars. I should like to know whether the Doctor Galilei could tell you Mina, whether you would ever get well, or tell me if I should ever go to Venice. How I should like to ask him!’

‘Well do you know Lotto,’ said Mina with a sigh, ‘that I should not at all like to ask him either of those questions. I should be so afraid that he might say I never should be any better; and then I don’t much think I should like him to say that you would go to Venice Lotto, for what should I do while you were gone?’

‘Why you would have to expect me back again to be sure, Mina, and to think of all the pretty things I should bring back from Venice, and all I should have to tell you about that strange city. That would be nice, would it not?’

‘Yes, nice when you came back again, but I should not like your going away, and I always hope that something will happen to prevent it.’

‘Ah, but I must go Mina, dear, you know. Father always says I must go to Venice to learn the last

new way of making mirrors, before I am quite a man, and begin to help him.'

'Well that is a good way off at all events,' said Mina, 'for you are only a boy now Lotto, that is a comfort. But look! There is the Doctor Galilei out on his balcony, Lotto! Does he not look very wise and good? I like his looks so much.'

'Yes, but see Mina—what can he be about? I do think he has dropped something—yes, a piece of paper or parchment; and here it comes flying down into the street.' 'Oh run and fetch it Lotto! Take it to him. He would be so sorry to lose it, I dare say.'

Before Mina had finished speaking, Lotto was off like an arrow from a bow, and had sprang down the great staircase, and was out in the street. It was quite a long time before he came back again, and Mina had grown quite impatient, and was almost afraid that he had stayed to ask the Doctor about her getting well, when Lotto burst into the room again.

'I have seen him Mina—I have seen and talked to Doctor Galilei, and what will you say when I tell you, that he is coming here to see you.'

'Oh Lotto, what can he want to see me for? You surely have not asked him.'

'About the stars? Oh no! and I don't believe he is an astrologer, Mina. Only a doctor who gives physic to people to make them well. But let me tell you first about the paper. I found it directly I got into the street, for it had fallen just by our door; and I picked it up, and was going to ring at the great bell of the doctor's house, when out he came himself; and when I gave it him, he thanked me very kindly, and said he had thrown it down on purpose, and that he was going to throw it down again from the balcony, if I would be so good as to pick it up again, and bring it up to him.'

'Throw it down again! Why Lotto, what could that be for? How foolish of him to do that.'

‘ No, Mina, not at all foolish, but very wise, and what is more I know all about it, as I will tell you. In the first place the doctor is trying to find out something about things falling through the air, he told me ; and after letting the piece of paper fall from the balcony spread open as you saw it, he went up again, and let it fall all crumpled up into a ball, and he found that then it fell much quicker, because it could push its way through the air, whilst before when the paper was spread open, the air supported it : and this was what he wanted to be sure of.’

‘ And you picked his paper ball up for him Lotto ?’

‘ Yes, and I took it up to him, and went into his house over the way, through the great hall and staircase up to the room where Dr. Galilei studies. Such a room Mina as you never saw. All full of books and papers, and such queer instruments and tools. And the Doctor talked to me, and I said that you Mina saw him first, and he said, “ Who is Mina ?” and then I told him. He said, “ What the little girl with the pale face, that I see sitting at the casement ?” and I said, “ Yes ;” and then he said, “ Why does she always sit there all day long ?” and I told him how ill you were, and how long you had been ill, and what was the matter, and then—now don’t be frightened Mina—but then he said he would come to see you, for he thought that perhaps he might be able to do you some good.’

But Mina was frightened, and she could not help feeling terribly alarmed at the thought that she might have to do something different from what she did every day, or take some disagreeable medicine. She had grown so accustomed to her present life that she scarcely wished for any alteration, except that now and then, she had great pains in her legs and joints, and this she would be very glad to lose. She had however ceased to think it possible that any Doctor could cure her, for she had had several some

years before, and had taken much medicine : but as they had done her no good, she had little hope of being cured that way, but according to the notions of those times, she fancied as did Dame Ursula too, that she would only be well when she had been taken to the shrine of some particular saint, and kissed some particular relics, which were supposed to have the power of healing. And when Dame Ursula was told that day all about the visit that was to be expected from the Doctor Galilei, she shook her head and said, ' Ah, all very well, my good Lotto, all very well ! ' The Doctor is as everybody knows a very learned man, but still I have no hope of his doing anything for our little Mina. If your father would only let me carry her to Loretto, to the chapel of our blessed Lady, and let her but once kneel upon the steps of the altar, she would be well again directly, and would be able to run about and jump and dance as briskly as you Lotto can do.'

But Loretto was a long way off, and besides this, Bertano, Mina's father had no belief that going there would cure his little daughter ; on the contrary, he was glad to know that Dr. Galilei would come and see her, and begged Dame Ursula to do all that he should recommend for the sick child.

Two or three days passed over however, before the visit of the Doctor was paid, and Mina had begun to hope, and Lotto to fear that his new friend had forgotten them, when as he was standing out on his balcony one morning, he all at once looked down towards Mina's little window, and then seeming to recollect her all at once, he nodded and made signs to her that he would come over.

The visit was not nearly so terrible as Mina had expected, for the good doctor talked to her a long time, about Lotto and her father, and asked to look at the piece of embroidery she was doing, and admired a pretty rosary of glass beads that lay on



the table, all before he began to question Dame Ursula, or examine her knees and ankle joints. The medicine he recommended too, was only a drink made of a particular herb, which was to be found in the fields near Pisa, and though she did not quite like the idea of having her joints bathed so often with cold water, as he advised, yet that was better than the rubbing with oils and salves that the other doctors had recommended.

When Doctor Galilei however looked round the little close room in which she sat, and found that only a very small portion of the glass window was made to open, he shook his head and said that she ought to have more light and air.

‘Have you no garden,’ said he, ‘in which she could sit every day in the air and sunshine, for that would do her more good than anything.’ Dame Ursula said there was a little terrace garden at the side of the house, but it was never used; and she added, that her little patient disliked being carried about, so that they never attempted to move her from her room.

Doctor Galilei said no more to them at that time, and took his leave. When he went out, he found Lotto on the stairs, waiting to catch a glimpse of him, as he passed down them, and no doubt hoping also to be able to have a little talk with his new acquaintance. To his surprise the doctor asked him to shew him the garden, which he understood there was at the side of the house. Now Lotto was accustomed sometimes to play in this little garden, and could get into it out of the court-yard by a steep flight of steps, for it was a sort of raised terrace in the manner which is common in southern countries, and being at the side of the house you could look from it down into the street. It was far from being a garden, like any such as we are familiar with, and as for plants, it was at that time little more

than a tangled mass of trailing vines, among which here and there stood a pomegranate or orange-tree, with their scarlet and white blossoms. In the middle of it was an old stone fountain, now choked up with grass and weeds, and dead leaves, and many years had passed since any water had flowed from it.

‘Aha!’ said Doctor Galilei, when he had mounted on to the terrace, and looked around him. ‘This is just what I expected. Why this garden is the very thing for thy little sister my young friend. This is where she ought to be sitting these sunny days, instead of being cooped up like a little bird in a cage, in that close room. Why my good Lotto, how is it that thou dost not bring her out here?’

‘Oh Doctor—Doctor Galilei,’ said Lotto, ‘you don’t know Mina. Why she would never let us bring her up here—she would cry at the very thought of our dragging her all down the great staircase, and through the court-yard, and up these steep steps, all to get here. I assure you, good Doctor it would really hurt her, for she is never accustomed to move.’

‘Well but that is no reason why she should not begin to move. This little garden too, is on a level with her little room, and surely there must be a door into it, through which she could come. See now, my fine fellow, what is this here behind this great myrtle bush? What is this but a door? Why not bring thy little sister out this way? It cannot be half a dozen yards from her room.’

Lotto looked surprised that the Doctor who was such a stranger to them, should find out what he had never seen before—a door opening from the house on to the terrace. Where could his eyes have been! And now when he came to think about it, this very door must be the one which he had so often seen, locked and bolted at the end of the very gallery into which Mina’s door opened. Still a look of doubt was on his face, as he thought of how Mina always



cried when they attempted to move her, even into the next room, and he told the doctor of his doubts.

‘ Well my boy, say nothing to thy sister at present about this garden. Set to work, and put it a little to rights and contrive her a place where she may sit sheltered from the sun at noon-day, and leave to me the rest.’ And then the Doctor and Lotto had a talk about where the hottest sun would fall, and where the afternoon shade would come, and how best she could sit so as to look down over the parapet into the street, to amuse herself by seeing the passengers go by ; and a great deal was planned and suggested by the good doctor, which Lotto was to manage to get done by the next week, when he promised to call again to see his patient.

It was just as well that nothing was said to Mina about going out into the open air, just at present, for it happened that two or three showery days followed after this visit of the Doctor Galilei, and it would have made her shudder at the thought of going out into the chilly damp air ; and it was lucky that Lotto was too busy to be tempted to let out the secret of the trial that was coming on her. Never had Lotto been so proud in his life, as he was in having something to do all by himself ; for Doctor Galilei had said to him ‘ thou art a stout strong boy, why shouldst thou not do all that is needful here thyself, in weeding and pruning these plants and in making it look nice and pleasant for thy little sister.’ So Lotto was determined to have very little help from any one else.

Some grand schemes too came into his head directly about making Mina a bower at the end of the little terrace, and of getting the vine to trail over it, and then he thought whether it would be possible to get the old fountain to play again and send up sparkling water, which would both look and sound so cool. In patching together some bits of trellis which were

lying about, so as to make a bower, and in clearing out the fountain, he had some assistance from one of his father's workmen, but all the rest he did himself. It took no little time and patience to get all the rank grass and weeds uprooted that had been growing unheeded and unchecked for many a year, and the luxuriant vines were difficult to get into anything like order, so long had they been accustomed to have their own way. Besides the grape vine, one long branch of a great gourd vine, with its wide spreading leaves, was coaxed however over the top of the trellis which formed the arbour, and Lotto contrived that the round green gourds or pumpkins, should rest in places strong enough to support them when they grew large and heavy. A bench and table were placed in the arbour ready for Mina whenever she should come ; and Dame Ursula promised some old velvet cushions when they should be wanted to make the seat easy and soft.

And how about the fountain ? The more Lotto thought about it, the more he wished that he could only get the water to come into it again, which would be such a charming thing for Mina to watch as she sat in her bower. No one could, however, tell him where the cistern was from which the water ought to come, and he looked in vain down the stone dolphin's mouth, out of which it must have gushed in former days so as to fall again into the marble basin. He was one day examining the fountain, and longing that he could understand it better, when he heard some one calling him by name. He looked around on every side, but could see no one from whom the voice could come, until at last turning his eyes upwards, he perceived that Dr. Galilei was in his balcony, and that he made signs to him. Signs of what ? Lotto could not understand, until at last he perceived that the Doctor pointed to the roof of one of the buildings which stood around the court-yard

and were used as workshops. The cistern from which the fountain was supplied must be there—the Doctor could see it as he looked down upon it all—and so it proved. He consulted his father and obtained his permission to have it all set to rights. A great bird's nest was found to have stopped the pipe by which the cistern ought to have been filled from the river ; the water was made to flow into it, and then through the pipes to the fountain. It came at last from the dolphin's mouth, at first only trickling slowly, and then at last spouting freely up, fresh, bright and clear.

'Better, most certainly better,' was the decision of Doctor Galilei as he saw Mina again about ten days after his first visit. 'And now, my little maiden, I must see thee stand.' And after much hesitation and alarm, Mina was actually persuaded to stand, and even, when held tightly by the Doctor and with her nurse on the other side, to walk two or three paces across the room. Not that day, but the next was she to be taken out into the garden, and partly from the assurance of all that it was a very little way off, and partly in the hope of seeing as they said all the people coming into market with their fruit and vegetables and flowers, she was induced to look forward to it with something like pleasure. Doctor Galilei assured her, too, that he should always be able to see her from his balcony, and that she would see him when out there noting down the movements of the sun, which he was accustomed to do each day, and she liked the thought of seeing her kind new friend.

The great door at the end of the gallery had been unbarred and unbolted, the soft cushions had been placed ready on the seat in the arbour, and Lotto had at last satisfied himself that the great vases which held the orange-trees stood in the best possible place for Mina to see and smell the blossoms, when he went to assist in the important operation of carrying his sister out from her dark room on to the terrace. It was a

fine warm sunny afternoon, and overhead was the clear and deep blue sky for which Italy is so famous. The myrtles and orange-blossoms sent out a sweet perfume, the flowers of the pomegranate shrubs and oleanders were gay and bright, and the waters of the fountain sparkled and shone like diamonds. No wonder that the little sick girl's eyes were dazzled and almost blinded as she was all at once moved from the dark and gloomy room amid these pleasant objects. It was well for her, indeed, that Lotto had trained the vines so well over the trellis that scarcely one



ray of sunshine could penetrate through the leaves, for when laid quietly down on the bench, with her own little playthings and work spread around her, the frightened and startled looks of Mina changed gradually to those of pleased surprise.

‘Oh Lotto, what beautiful flowers! What a beau-

tiful fountain! You never told me about the fountain. How brightly the water sparkles and how cool it looks! What are those red flowers called? How sweetly the orange blossoms smell! Will there be oranges by and by? And grapes too! And shall I see them ripen? And her little tongue ran on long with questions and remarks, while Lotto was in great delight at all her pleasure and surprise.

‘I did it all, Mina, very nearly all myself! Such work I had with the grass and weeds, and such work we all had with the fountain to make it play so well. Doctor Galilei said you ought to come out here. He says that air and sunshine are to be your physic. Nice physic, is it not, Mina?’

‘Oh yes; and then the flowers and the fountain; I do think, Lotto, it will do me good to smell the flowers and listen to the fountain.’

‘And now that you are rested a little, Mina, only just turn one little bit this way, and see how you can look over this parapet here down into the street below. And you can see all the people as they come in from the country, and on festival days we shall have the processions pass this way. Will it not be charming?’

‘And Doctor Galilei, Lotto—he said I should see him. Where is his balcony?’

‘Oh, up there—now I see. And look, he is coming out—he nods to us, and smiles!’

Mina was very happy at first, but it is not to be wondered at that the pleasure and the surprise, and the exertion of being moved, and looking at so many new things, should soon tire her, so that Lotto was almost disappointed and frightened when her spirits began to flag, and, at some little annoyance from the flies, she began to cry, and begged to be carried back again to her own room.

The next day, however, early in the forenoon, she was anxious herself to be taken to the terrace again,

and there it was she had her little mid-day meal of broth and rice. The trellis bower soon became a little home to her, and as the summer wore on, there were few days of which a considerable portion would not be spent out there. As Doctor Galilei had foreseen, she improved visibly in health ; and before two months were over, colour had come into her cheeks and she could not only stand but walk.

It needed the encouraging voice and firm manner of Doctor Galilei, however, to induce her to attempt to use her legs, and it was quite contrary to what she herself or Dame Ursula believed to be possible when, assisted on one side by her good friend the Doctor, and leaning on Lotto's shoulder on the other, she actually walked one day the whole way round the fountain which stood in the middle of the terrace. This first attempt proving successful, a certain amount of walking was ordered by the Doctor for each day, and it was not more than three months from her first trial that she was able, with Lotto's help only, to reach the terrace from her own room and to return to it in the evening back again. Nothing more was said by Dame Ursula about the journey to Loretto ; but there were times when she threw out hints about Doctor Galilei being something of a magician, and hoped that she might not through his magic become just as quickly ill again. Mina and Lotto, however, were not afraid of anything Doctor Galilei might do ; on the contrary, they were full of gratitude to him for his kindness and good advice. Mina especially loved him, as she said, almost as well as she did Lotto or her father, and it would have been a pleasure to her if she could have expressed to him any part of the grateful feelings that filled her heart. She was always so glad when she could find any thing to do for Doctor Galilei, or to give to him, and many a time she would make Lotto take up to their opposite neighbour some of the good things that were brought



as treats to herself, such as some fine ripe figs, or some of Dame Ursula's choicest cakes. She embroidered for him the prettiest purse she had ever made, and plaited some neat straw mats for his table; and there was no night that she went to bed without looking up to see if the good Doctor might not be out on his balcony, that she might see him the last thing before kneeling down to say her prayers, for it seemed to her as if he ought to be thanked as well as God for her recovery. Something of this kind she said to him, one day when he came to see her, but he replied, 'Nay, my little maid, thou must thank and praise alone the Lord of heaven for thy health and strength; for if I have given thee good counsel, still my knowledge cometh but from him. And the virtue that is in the herbs of the field and in the fresh air and warm sunshine—they are but blessed gifts of his to man, which He hath given him power to use to his own good.'

Besides this feeling of thankfulness which he shared in on his sister's behalf, Lotto had begun to feel himself quite a person of importance ever since he had taken a part in her cure, and been treated with confidence by so learned a man as the Doctor Galilei, and nothing he liked so much as having an opportunity of paying him a visit on some pretext or other, so as to see some of the curious things he had up in his room, or get some piece of knowledge from him. He found that the doctor had left off giving advice to sick people in general, and spent his time principally in observing the heavenly bodies—the sun, moon, and stars; while he made all kinds of calculations about them, and drew maps and plans of their situations in the sky. His business, too, was to teach what he learned and observed to the students of the University of Pisa, and on certain days he went into the city to give lectures. He liked to impart to others the knowledge that he acquired, and even to teach such a young boy as Lotto.



He taught him many things himself, and he encouraged him to attend more regularly at school, in order to learn to read and write, for as he said, there was much knowledge which could be gained only by reading, while what we got by seeing and hearing could never be made of use to others without writing.

It was Mina's birthday; and this was when autumn had quite begun, and all the Italian fruits were ripened in the mellow sun. The grapes on the vine that hung over the trellis of Mina's bower were now of a deep purple, and the gourds had swelled out so large and heavy that they quite weighed down the branches on which they grew, some resting on the ground, and others lodging on the stone parapet. In the place of the white orange blossoms that had scented the air so sweetly when Mina first came out upon the terrace, there were plump oranges of every shade between pale yellow and the deepest red, and pomegranates hung where the scarlet flowers had been.

To celebrate the day, Mina's father, Dame Ursula, Lotto and herself were all to take supper together on the terrace, and the grapes from off the vine, and all the ripest oranges were to be gathered on the occasion to add to the repast that Dame Ursula had been so busy cooking all the morning, in the kitchen, and making purchases for in the market.

They were seated round the table in the bower, and Mina's health had been drunk by her father in some of his best wine, and he had given her his usual birthday present of a gold coin, when Lotto espied the Doctor Galilei watching from his balcony as usual the setting of the sun.

'Oh Lotto, do run over,' said Mina, 'with some of these grapes for the good doctor. I know he likes grapes, and take him too this piece of purple glass that I promised him to look at the sun through ;

and tell him Lotto that it is my birth day—and don't forget to say how often I have walked round the fountain to-day and how well I am.'

She had many more messages to send, but Lotto was off before they were half ended, and he was soon seen standing on the balcony by the side of Doctor Galilei. He came back again, however, sooner than they expected, and to the surprise and pleasure of all, he brought back word that Doctor Galilei had invited himself down to join the supper-party, that he might as he said, give Mina his good wishes with the rest.

Mina was very glad that her father should have her kind friend and benefactor as his guest, and a chair was brought out for him from the house, and the best silver drinking-cup placed ready for his use. Never had the Doctor Galilei seemed so cheerful as he did this evening, for he was more often grave and thoughtful—but now he joked and laughed with Mina and Lotto, and had a long and interesting talk with their father, about his methods of making glass. Bertano was pleased to find how willing the learned doctor was to listen to all he had to tell and describe, and he went and fetched several things that he had been lately making of glass, which he fancied his guest would like to see. Amongst these were some small mirrors, which being rounded on the surface or convex, would reflect objects much diminished in size, so that their supper-table, the orange-trees, and the fountain were all to be seen reflected on the small surface of the mirror, as in a little picture. Besides these mirrors, he produced some other things which seemed to please the good doctor even more, and these were small rounded pieces of glass, which he called magnifiers, because by looking at objects through them, they seemed magnified, or two or three times the size that they really were. Looked at through one of these pieces

of glass for instance, the wing of a butterfly which Lotto caught, seemed as if covered with gold-like shining feathers, and the small seeds in the figs looked as large as orange-pips. Doctor Galilei was never tired of looking first at one object and then at another, through these magnifiers, and as Mina said, he seemed quite delighted when her father begged of him to take two of them away with him, and thanked him as much as if he had received a very precious gift. He had bid them all good night, or as the Italians say, 'a most happy night,' and said he must go back to his books and writing, when his eye happened to rest on one of the large round pumpkins or gourds that grew on the vine over the arbour. As Mina observed, he stood some time looking at it in silence, and then turning to Lotto he said, 'When thou seest the lamp lighted in my room to-night, bring up to me one of the roundest of those gourds, and I will shew thee something.'

'What *can* the Doctor Galilei want with a gourd Lotto, do you think? Surely he does not eat them, for they are not half so good as melons. What can he have to shew?' Lotto did not know any better than Mina, and he waited most impatiently until the time came for satisfying his curiosity. Mina who was more than usually tired had gone to bed, and Dame Ursula had cleared away the remains of their little feast, and his father had returned to his workshop, before the glimmer of the doctor's lamp was seen at his window; and then Lotto who had long before cut off a plump round pumpkin, set off with it under his arm, across the street, and up the doctor's great stone staircase.

Doctor Galilei was busy as he entered, and told Lotto he must wait until he had noted down something which he had observed that evening in the stars, and Lotto stood in silence out on the balcony, as the doctor went backwards and forwards, from

looking out at the starry sky, and then to his great star-map, which lay stretched out upon his table. By and by the star had set which he was engaged in watching, and he then rolled up his maps, and put away all his books and papers so as to leave nothing on the table, but his lamp, which he left standing in the middle. Then he desired Lotto to bring his gourd, and begged him to listen attentively to what he had to tell him. First of all, he told him that the earth on which we live is round in shape like the pumpkin he held in his hands; of this, he said there was no doubt. The great traveller Columbus more than a hundred years before had known this quite well, and had boldly steered his ship to the other side of the great globe or ball; and since Columbus, men had sailed on and on across the seas to the west and come back again round from the east, so that they had been quite round the world; and Doctor Galilei marked a line all round the gourd to show Lotto the track in which the ships had sailed. He said that when a boy no bigger than Lotto, he had learned all this, but that now he was going to show something which he had only lately learned about the world, partly from the writings of Copernicus, an earlier philosopher, and partly from what he had himself observed and studied. He said to Lotto that he supposed he knew that the sun rose in the east in the morning, and that it was at noon nearly above their heads, while in the evening it sank down or set in the west; and Lotto said he did know all this, but that he always wondered where the sun went to at night, so as to slip up again each morning in the same place; but that now he supposed it went round and round the earth in the same way as he now moved his hand round and round the gourd.

Doctor Galilei smiled and said, 'More people than thou my child think this. But what thinkest thou about it when I tell thee, that the sun is greatly

larger than our world, and that it is millions and millions of miles distant from us. Dost thou think that so large a body is likely to take this long journey every four and twenty hours to give us a little of its light on this our globe? Dost thou believe this my boy? Lotto knew not what to believe, but he thought it must be so, unless there were many suns that came by turns.

‘Nay, my good Lotto! Look but a little while at this,’ said Doctor Galilei, and at the same time he trimmed his lamp till it sent out a brighter light, and then holding the gourd before it, he said, ‘the world is like this gourd. One-half of the gourd thou seest is lighted by my lamp; my lamp is like the sun. The sun remains at rest, it does not move, but the earth does move. The earth—the world—the great globe on which we live, it turns round. Once in every four and twenty hours does the earth spin round, just as I turn this gourd. And now thou seest my boy that this is the easy and simple way in which the great Creator has contrived that we, upon this earth should have light and darkness, day and night. Not by the long journey of the great sun around us, but by the spinning of our globe upon its pole or axle. Wonderful and wise contrivance! How great the effect, how simple the cause!’

And as he spoke, the eyes of the good doctor sparkled and his cheek flushed, never had Lotto seen him look so exulting or so proud as he kept holding the gourd by its stalk, and turning it round; and as the light of the lamp fell always on one-half while the other was in shade, he murmured to himself, ‘night and day—day and night—it moves—yes, most surely must it move.’

Then all at once the doctor remembered Lotto, who sat in silence at his side, still rather puzzled, as he thought of the rising and setting sun; and he could not understand it all, until his teacher made on

the side of the gourd a mark which was to represent Pisa, and then as he turned it round before the lamp, they could see Pisa in the shade which was night, when he and Mina and his father were asleep, and then the mark came to the edge of the light again, that was sunrise,—morning at Pisa,—and when it got to where the lamp shone straight and full upon it, that was noon ;—and now he understood it all.

‘ And the stars and moon,’ said Lotto, wanting to know still more.

‘ Nay, good Lotto this is enough for thee to-night ! May be, my friend, another day I shall be able to teach thee more—but now we will say farewell. Leave me thy gourd, and get thee home to bed, so as to be ready for the great sun to-morrow when he comes again ; but that is wrong, I ought rather to say, when we are turned towards him again.’ Lotto thanked Dr. Galilei for his lesson, which he said he was sure he should remember, and he was leaving the room, when the doctor called him back again. A look of gravity and even of sadness had come over his face, quite different from the happy look he had just before had, and after a pause, he said, ‘ Lotto my young friend, thou must not speak of what I have shown and told thee this night. There are those who might think it wrong in me to teach it thee, although it is the truth : Go thy way. Tell no one unless thy little sister, and she will not betray me. Tell her if thou wilt, but no one else.’ And Lotto went home. For the first time in his life, he walked down the doctor’s stairs slowly and quietly. He crossed the street, and went up at once to his own room, slowly and quietly too, seeing and speaking to no one. He went to bed, silent and grave. He was more than grave, for he was frightened. Never before had Lotto had such a secret to keep, and at the same time too, such a secret to tell. He longed for morning that he might be able to go to Mina, and he longed



to see the sun again. There was something about this, that the Doctor Galilei had taught him, which he did not quite like. The thought of their all being so constantly twirling round in the air was not pleasant, and he wished he had only Doctor Galilei at hand before he went to sleep, that he might ask him why they did not all fall off the gourd, that is the earth. Then he remembered the flies on the ceiling, and he thought that when he tried to walk again his feet would stick to the ground, and he tried to lift his legs and could not, but was being whirled round faster and faster;—in fact, to tell the truth, Lotto's thoughts grew very indistinct and confused, for by this time he was ceasing to think, and had begun to sleep and dream !





## THE SAGE.

WE must imagine five or six years to have passed over before we continue our story. During that time many changes had taken place, some of a sad and others of a pleasant nature. Fiammina as we may now call her, had in those years lost all traces of the sickly child she once had been, and was now a healthy active young girl with blooming cheeks, able to run swiftly and dance gracefully. Dame Ursula having died, she had become mistress over her father's large household which she ruled with diligence and skill. Lotto, or rather Lancilotto, had spent three years of the time in the distant city of Venice, that curious city in the north of Italy, which is built on small islands, and where instead of streets, canals of water are between the houses, on which the inhabitants go about in boats. He had there learned several new methods and processes connected with the making of glass, and had acquired much knowledge about the staining and colouring of it, and had learned to draw devices and designs upon it, so that he now had become of great assistance to his father, and was able to direct and manage several departments of the manufactory. Lotto had lost none of his former activity or liveliness, but he turned it now to good account, and was steady and industrious. The brother and sister were too, as fond as ever of each other, and Lotto was never so proud as when dressed in their best he attended Mina to some grand religious ceremony in the great Cathedral, or went with her to some of the festivals which were held in the villages round Pisa, where they danced

merrily with the young peasants or joined in their sports.

Meantime, however, they had lost their kind friend and opposite neighbour the Doctor Galilei. Some time before Lotto went to Venice, he had left Pisa, and removed to the city of Padua, and strange reports had been spread about as to the cause of this removal. It was whispered that he had got into disgrace, with whom, and about what, no one seemed well to know. Sometimes it was said that he had been teaching false and impious things to the students of the University, to whom it had been his duty to lecture; by others, it was said that the Pope had been offended by one of the books which he had written; and Lotto and Mina would often when quite alone talk to each other about the secret which he had told them, and wonder whether it could have been anything to do with this, that had caused their good friend and benefactor to leave the city. They had kept the secret well, and yet whenever they heard the Doctor Galilei spoken ill of, or the truth of his teachings doubted, they always said in his defence, that they were sure it must all be a great mistake, for that one so good, and kind and wise, could never have done or said anything wicked or wrong, and they nourished gratefully in their hearts the remembrance of the benefits which he had done them. Mina never forgot that it was through him that she was now so strong and well, and Lotto on his side felt that the good advice, and kind friendship of Doctor Galilei had prevented him from growing up a thoughtless idle youth.

It was about five years from the time of Doctor Galilei leaving Pisa, that one winter evening the family of Bertano were gathered together in the great stone-floored apartment, in which their evenings were usually spent after the business of the day was done. The fire burned brightly on the hearth.

Bertano the father, sat by its side drowsy from fatigue, and half lulled to sleep by the clicking of Fiammina's spinning wheel, which she was busily turning, and Lancilotto was sitting on a low stool and drawing on his knees what he meant for a pattern round a large glass goblet, which he was about to make. As she spun, Fiammina sung from time to time snatches of some of the pretty Venetian airs which Lotto had learned when he was away, and now and then his voice would join in with hers so softly and harmoniously as not to disturb their sleeping father. Suddenly the bell at the great street door was heard to ring, and the dogs in the yard began to bark. Bertano jumped up startled and surprised at this notice of a visitor, and Lotto ran out to see who could have come so late. Some cordial words of greeting were heard without from Lotto, and then returning quickly he ushered in the guest.

'Mina! father! a pleasure for us all. Our kind old friend the Doctor Galilei. Him whom we scarcely hoped to see again in Pisa!'

And warmly was he greeted by Fiammina and her father; Fiammina, who had, as the Doctor said, grown quite out of knowledge, so tall and stout and rosy was she now. Lancilotto, too, he could hardly recognise as the slender little boy of former days,—now a tall and manly youth.

But if the brother and sister were altered, how changed was their good friend, over whose head, full twice the number of years seemed to have passed. The hair of Dr. Galilei had grown gray, and his cheeks were sunk and hollow. He had studied much, he said, and had much sorrow and anxiety. It was quite true, he said, that he had been obliged to leave Pisa, and that he had given offence by his teaching and opinions, but now he had left off writing or lecturing on these disputed matters, and he was permitted to return.

After that he was seated comfortably at the fire, and that Bertano had fetched a flask of his choicest wine, and Fiammina some cakes of her own making, the doctor began to relate the object of his visit. Besides wishing, as he said, to see his former little patient and his pupil Lotto, he had come to solicit their assistance in a matter which just then was occupying all his thoughts. He had but lately returned from a visit to Venice, where he had heard much of a wonderful instrument that had been invented in Holland for looking at distant objects with ; it was called a *Telescope*, and he wanted if possible to construct one somewhat similar that would enable him to observe the moon and stars. He was convinced, he said, that in its construction must be used some such pieces of glass, or magnifiers, as those which Bertano had given him on Mina's birthday, many years before. Some such pieces of rounded glass, and yet at the same time different, for those he had would only magnify objects which were near. What he now wanted of Bertano then was his assistance in discovering the right kind of magnifiers, and the right way of putting them together. Turning to Lancilotto, the Doctor Galilei said, 'Perhaps thou, my young friend, wilt assist me too in this matter, and wilt make me a variety of these glasses, so that I may make trial of them for this purpose. Could I but see with them still more plainly the surface of the moon or some of those stars which we call planets, I feel assured that much that is new and strange would be discovered.'

Lancilotto was only too proud to be asked such a favour by one to whom they were all so much indebted ; and after this evening much of his leisure time was spent in the grinding and polishing of different kinds of *lenses*—for such are called the rounded pieces of glass with which telescopes and microscopes are made. Many were the trials that were made before

anything like success was gained ; and the patience and perseverance of both old and young was needed to bear up against the many disappointments which they had to encounter before they could succeed in a matter requiring such great nicety and skill. It was necessary that the glass should be of the greatest purity, and that the rounding of the surface should be precisely equal and even. It was found, too, that two lenses must be used of different forms ; and it was only after long and repeated trials that Doctor Galilei found that one of these two lenses must have a hollowed-out, or *concave* surface, instead of bulging, or *convex*. After this, when they had fixed these two glasses in a hollow tube, came the discovery that much depended on the distance which these were from one another, and that it must vary according to the distance of the object looked at, so that the tube had to be formed in such a manner that it could be lengthened or shortened at pleasure ;—in fact, any one who has ever seen a telescope can easily imagine that much time, and skill, and perseverance must have been expended before such an ingenious instrument could be constructed ; and they will not wonder to hear that weeks and months, and even years were passed over before all that was wanted was produced.

During this time, Doctor Galilei,—or, as we may now call him, Galileo (for it was by his baptismal name\* that he was afterwards known to the world)—during all this time Galileo made much use of the services of Lancilotto, and was very frequently at the house of Bertano.

Fiammina took great interest in all that was going on between her brother and the learned Galileo, and she was proud indeed to think that Lotto and her father should assist him in his pursuits. As they

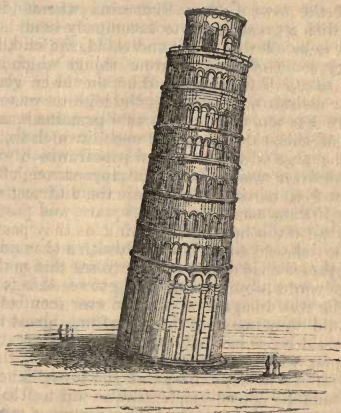
\* His name being Galileo Galilei.

sat together of an evening round the supper-table in their great sitting-room, or on a summer's evening in the old arbour on the terrace, making trial of all kinds of glass lenses, and talking about their powers, she could not understand much of what was going on ; but she was glad to think that Lotto was always learning something or other from the doctor, and that being so often with him during his leisure hours, prevented him from associating with the idle and foolish youths of the city who spent so much of their time in rioting and feasting.

It was nearly two years from the time of Galileo's return to Pisa that one evening, late in the autumn, he came to tell them that he was going to make trial that night for the first time of his telescope from the top of the Campanile, or Leaning Tower, and that he wanted Lotto to assist him. Now, this Leaning Tower is still to the present day one of the most curious things in Pisa, and is not only visited by travellers as a curiosity, but drawings and models of it are to be found all over the world. The Italian word *campanile*, means bell-tower or belfry, and for this purpose it was built many hundred years ago,—at first, it is thought, quite upright like other towers, and of many storeys, one above another, to which you ascended by a spiral staircase inside. Very shortly after it was built, however, an earthquake is supposed to have sunk the ground on one side, or raised it on the other, so that the tower was made to incline in the slanting position in which it still remains. After this another little storey was added to it at the top, to contain some heavy bells, and was made to lean in a contrary direction, so as to help to prevent the original tower from falling.

From the top of this tower Galileo was accustomed to observe the heavenly bodies, and to make many experiments about the falling of bodies to the ground. He had now so far succeeded with his telescope that





he wanted to try to see with it the moon and one of the planets ; and as that evening the sky was particularly clear, and the moon at its full, he was going to carry up his new instrument, and would be glad of Lancilotto's help. They were preparing to depart, and Lotto had already lighted the lanthorn which would be needed to light them up the winding staircase of the tower, when Fiammina was suddenly seized with a great desire to accompany them. She begged to be allowed to go, and could, she said, help to carry some of the numerous things which they had to take. The doctor said he should be glad of another assistant, if climbing the high tower would not tire her too much ; and as Fiammina was not afraid of this, she wrapped herself in a cloak, and taking charge of the book and pencil which would be wanted for noting down the appearance of the moon and stars, she set off with them through the streets of Pisa, across the great square, and past the Cathedral to the Leaning Tower.

Little did the people of Pisa think, as they passed this group, the old doctor and the youth and maiden, that they were that evening going to see things that since the world began, no one had ever seen before ! Little did they imagine that what was about to be seen would be, as we shall tell hereafter, a great and lasting service to mankind.

The man who kept charge of the tower let them in without any opposition, for Galileo was well known to him, and he helped them to carry up a stool to sit on, and a frame which had been contrived to rest the telescope upon. It was strange work to Fiammina the climbing up that dark and winding staircase, slanting so uncomfortably as it did all on one side, and, tired and giddy, she sat down on the steps, many a time fearing that she should never reach the top. She did get up, however, and held by Lanci-

lotto's firm arm, it was not long before she took courage to look around her upon the strange yet beautiful scene below and above them. Below, the great city—the dark and gloomy mass of building composing the Cathedral—the lights gleaming out here and there from among the houses from some casement, or some torch carried along the streets—the silver line that divided, as it were, the city into two halves, and which they knew to be the river Arno, which flows through it—the distant hills bounding the plain on which the city stood;—and then, more beautiful than all, the great arch of heaven stretched wide above their heads, spangled with twinkling stars, and in the midst, the large round silver moon, without a cloud near her, sailing, as it were, in the deep blue sea of sky!

The young people felt as if they would never be tired of looking around them, and Lancilotto had almost forgotten for what they came, when he was called by his old friend who was all this time busy arranging his telescope upon its frame. Fiammina losing her giddiness, leant upon the parapet and continued looking at the beautiful view, while the other two were long engaged in adjusting and arranging, before anything like the right position could be obtained, for seeing the moon or stars with the instrument. At last exclamations of surprise and delight reached her ear, from Lancilotto and even from Galileo. She crept round, clinging to the parapet, to the spot where they had erected the telescope and its frame. Almost doubting their own eyes, she was called to look also through the glass at the moon, whose face was to be seen so greatly magnified that they could distinguish what Galileo felt sure must be its valleys and mountains. The 'Man in the Moon,' as they had when children called the marks upon the moon's face or disk, when seen

through the glass, was now like the map of some rugged piece of land, and Galileo told them that what he now saw, convinced him that the moon was really a globe or ball of a nature somewhat like our earth. But interesting to him as was this view of the moon, and satisfactory as it was to him to find that what he had fancied about it was true, he was even yet more anxious to look through the telescope, at one particular star, which that evening was high in the sky, and in a good position for his observations. This was the planet Jupiter, which Galileo taught them to distinguish from amidst the other stars by its bright yet steady light. He wanted much to see this planet through the glass, because he could not help thinking that the planets were very different in their nature to those which are called the fixed stars, which have always the same places in the sky with regard to one another, while the planets change their situations among them. It was however, very long before Galileo could get his telescope fixed in the right position for seeing Jupiter, and Fiammina had almost got tired of waiting and watching, and was beginning to think she should like to go down again into the city, when Galileo exclaimed, 'It is so, it must be so—there are three of them—there can be no doubt that they are moons,' and wishing to have his discovery confirmed as he said by their younger eyes, he made first Lancilotto and then Fiammina look through the telescope and tell him if they did not see near the magnified planet Jupiter, which the glass now showed quite plainly, three other smaller stars quite near to it, hanging as it were about it—stars which were quite invisible when the planet was looked at without a glass. They did see these stars, and afterwards they saw a fourth, but Lancilotto and Fiammina did not understand sufficiently about the matter to know why Galileo was so pleased, so delighted at the discovery. He looked at

the distant objects again and again, and he carefully noted down their positions, while they heard him murmuring to himself exclamations of joy and even thankfulness. He seemed to thank God that he had been permitted to see this sight—that for this his life had been prolonged, and that such success had crowned his labours and his studies ; and then laying a hand on the shoulder of each of his young friends, he said solemnly as he raised his head and looked around, ‘ yes, my dear children, truly has it been said, that the “ Heavens declare the glory of God,” and that “ the firmament sheweth his handy-work,” for “ day unto day uttereth speech, and night unto night sheweth knowledge !” ’—then after a pause, during which all were silent, the old man seemed to remember that his companions would be tired of remaining so long in the night-air, and after one more look at the moon, the telescope was put carefully up, and they descended again the steep and winding staircase of the tower.

Galileo did not speak again, until having crossed the great square, he stopped, and bid them affectionately farewell, for he now lived in the University of Pisa, in a distant part of the city from their home ; and those parting words were almost the last that Fiammina ever heard from the lips of Galileo. After this evening he continued to pay many visits to the Leaning Tower, with his telescope, and was often assisted by Lancilotto, while making his observations, as well as in continuing to improve his telescope. The discovery of the four little stars near the planet Jupiter, was as we have said a very important one, because after watching them very constantly, he found that they revolved round the planet, and this led him to think that Jupiter was perhaps a large globe like our earth, only lighted by four moons instead of one, while on the other hand, if our earth, was of the same nature as the planets,

he felt sure that we must be like them revolving round the sun. The four little moons belonging to Jupiter became afterwards of great use to mankind, since by observing their position the mariner is assisted in finding his situation when far away from land, and is enabled to steer his course upon the pathless ocean. Besides making these discoveries, the observations which Galileo was able to make with his telescope, made him more certain than ever that what he had thought about the earth turning on her axis, and the sun standing still—the secret which he had told to the boy Lotto, was true. He became so sure of it indeed, that he could not help teaching it openly in the University of Pisa, and by this means he brought himself into great trouble, and drew upon himself the displeasure of the Inquisition.

Before we proceed any farther in our account of Galileo, we must say a few words about the Inquisition for those of our readers who may not have heard of it before. Some hundreds of years ago, a kind of society was formed in Catholic countries, (chiefly in Spain and Italy), which professed to have for its object, the upholding of religion, and the punishment of crime. It was composed principally of priests and princes, headed by the Pope, and was called the Inquisition, because it searched into, or was *inquisitive* about every body and their affairs. Now unfortunately for the world at that time, this society had very strange notions about what was the best way to promote religion, and still stranger ones about crime. It was thought for instance a crime to think for yourself, or have an opinion different from the rest, and every where were members of the Inquisition, going about as spies upon the words and actions of the people, and often when a person was merely suspected of believing something different to what was taught by the priests, he was severely and cruelly punished. Those whose office it was to teach



the young, were especially very closely and strictly watched, for fear they should put what were considered dangerous notions into the minds of their pupils. No sooner then had Galileo begun to teach again that the sun stood still, and that day and night were caused by the earth turning on its axis, than it was reported to the Inquisition, who decided that he should not only be prevented from teaching such impious things, but should be punished, because they said it was contrary to what was taught in the Holy Scriptures. In vain did Galileo maintain that what he taught was true, and in vain did he remind them that the 'Scriptures were intended to lead men in the way to salvation, not to teach them astronomy.' In the midst of all his useful studies and discoveries, he was summoned away, and ordered to appear at Rome, to answer before the Council of the Inquisition for the crimes of which they accused him.

Galileo went to Rome, and among others of his friends who accompanied him, in hopes of being able to defend and serve him, was the youth Lancilotto. Old, and infirm, and sorrowful, the wise and good Galileo was thrown into prison, and there subjected to many harassing and wearisome examinations. He was, even as it is supposed, put to bodily torture to induce him to confess that he was in the wrong, and it was after this, and when worn out and broken-spirited, that they made him sign a confession, that what he had so long and firmly believed, and what he knew to be true—was false. In a room belonging to the Council of the Inquisition at Rome, where all the Inquisitors, or officers of the Inquisition, were assembled, Galileo was brought forth, and the following were the contents of the strange paper which they forced him to sign on his knees in their presence :—

*'First—To say the sun is immoveable is absurd and false.*

*'Secondly—To say the world moves with a daily motion is absurd and false.*

*'With a sincere heart and unfeigned faith, I adjure, curse, and detest the said errors and heresies, and I swear that I will never in future say or assert anything, in speech or in writing, which may give rise to a like suspicion against me. . . .*

*'I, Galileo Galilei, have adjured as above with my own hand.'*

The old philosopher was surrounded by his enemies and persecutors—he had lost all courage, and he was hopeless of convincing them—for a moment he gave way, and yielding to their power, he signed !

Then rising from his knees, he turned to a friend who stood by his side, and in a low voice said, *'It does move, though.'*

Whether those words were heard, we know not, but it is certain that Galileo was for years after confined as a prisoner by the Inquisition, while his works were forbidden to be published or read. He was, however, afterwards allowed to continue his studies ; and when nearly blind, many of his discoveries were written down by others, and afterwards given to the world. He lived as prisoner near the beautiful city of Florence, a city, it is said, of which he was very fond ; but only when dead, and when his body was carried in to be buried, was he allowed to enter its gates.

And thus sadly ends the history of the philosopher Galileo, the Doctor Galilei of our tale ; but in pitying what he suffered, we will not forget that his was, after all, a great and noble—almost a happy lot. He died conscious that he had revealed much which, when rightly understood, would add to the glory of God, and be of service to mankind. And when Lancilotto returned to Pisa, and related to Fiammina all that had happened at the trial of Galileo in Rome, they grieved deeply over the sorrows of

their old friend, and during his long imprisonment cast many a sad thought after him ; and of all the blessings with which their peaceful and happy lives were favoured, there was none for which they were more grateful to God than that of having known and loved the good and kind—the great and wise Galileo.



In the preceding story there is so much mention made of glass, that we think we may venture on saying a few words to our readers concerning the discovery and manufacture of this beautiful and useful substance.

An old historian called Pliny, who wrote about seventy years after the birth of our Saviour, gives the following interesting account of its accidental discovery. He says that a vessel belonging to some Phœnician merchants, which had on board a cargo of *nitrum* or soda, was compelled by stress of weather to put in at the mouth of the river Belus, on the coast of Syria, near Mount Carmel; and that the crew having landed, made themselves a fire on the shore, and took some lumps of soda to rest the pot upon in which their food was cooked. The soda melting, or being *fused* by the heat of the fire, and mixing with the sand of the shore, pieces of the transparent substance which we call glass were found by the sailors in the ashes of their fire. Another account says, that the fire was made of seaweed, which, when burned to ashes, became what is called *alkali*, or soda, and, mixing with the sand, formed glass.

Now, it is very probable that all this may have occurred, and yet it is equally true that this was not the *first* discovery of glass. It has been proved, indeed, that glass is a much more ancient substance than Pliny imagined; for since his time, glass beads have been found in Egyptian tombs as ornaments to mummies, and fragments of glass have been discovered among the ruins of cities so old, that we find it must have been manufactured fifteen hundred years at least before the birth of Christ. It is not unlikely, however, that the art of making it was forgotten and lost; and it may be, that the sailors who lighted the fire on the sea-shore, on finding the lumps of glass among its ashes, observed how they had been

produced, and instructed others how more of it might be obtained. Any how, it is certain, that at the time of Pliny, glass could only have been known as a very rare substance, and it was many hundreds of years after his time before people thought of making windows of it. The only substances that had been used for this purpose were thin plates of a mineral called talc, a particular kind of oyster-shell, which is flat and thin, and pieces of horn. Now, the first of these is a very rare substance, and only found in small quantities, and the two latter admit the light, but cannot be seen through ; therefore the great superiority of glass must have soon been perceived.

The story of Pliny proves, too, another interesting fact ; which is, that glass in his time was made of the same materials as in the present day, and we may also presume that the glass necklace of the three thousand year old mummy was also produced in the same manner, viz., by the melting together in a hot fire or furnace of *sand* and *soda*. Let us then consider with thankfulness what an increase of comfort and pleasure has been gained to mankind by means of this substance, which can be made out of two other substances so common as sand and soda ! In the first place, light can be let into our dwellings without at the same time admitting wind and rain ; and next comes the satisfaction which we derive, by means of looking-glasses, of seeing our own faces—the reflecting power being obtained by means of a metallic coating at the back of the glass. Then come all the advantages derived from the power which certain shaped pieces of glass have of magnifying ; correcting, as it were, defects in our sight, so that the old and near-sighted can read with ease and comfort ; while, as our story has shown, much knowledge has been gained to the world through the power which glass gives us of seeing

things too small to be visible to our eyes, or too distant for us to see distinctly and plainly. In short, there is scarcely any possibility of enumerating all the advantages which we obtain from this useful substance ; and it is at this present time that we are seeing quite a new and singular way of employing glass, viz., in the construction of one of the largest and most remarkable buildings that has ever been erected in the world, and which, in the immense quantity of this substance which has been used in its erection, affords a strange contrast to the small pieces of glass found on the Syrian shore, or to the glass beads of the Egyptian tomb !



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